a means of defence, and the bicipital abscess in the case here reported, seemed to be an example of this kind. The results obtained with the gonococcic vaccine are much superior to those obtained with the ordinary therapy in vogue. Local treatment is effective locally in a case of gonococcic septicemia, but it does not affect the microbes and toxins in the blood. The salts of silver introduced into the circulation furnish appreciable results, but they are not specific. The vaccine, on the contrary, especially the autogenous vaccine prepared by culture of the blood, causes with the least reaction a progressive and definite immunity against the infectious agent. It is a vigorous specific. In this case the microbe found was analogous in all points but was not the typical gonococcus.

THERAPEUTICS

UNDER THE CHARGE OF

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The Treatment of Articular Rheumatism with Atophan.—Bendix (*Therapie d. Gegenwart*, 1912, liii, 301) gave atophan in doses of from 1 to 5 grams per day to 100 cases of articular rheumatism, with very good therapeutic results. The length of treatment varied from ten days to a period of several weeks. He gives a tabulated report of all the cases treated, dividing them into groups as to results obtained by the treatment. Of the 100 cases, 45 were rapidly cured. These 45 were especially acute cases with high fever and marked joint involvement. The temperature became normal in most of these patients after two or three days of treatment, and the joint manifestations disappeared a few days later. The second group comprised the cases denoted as improved, and of these there were 28. Most of these patients had very little evidence of rheumatism after the treatment, except joint pains and stiffness that recurred after discontinuance of the remedy. The third group of 27 cases was not influenced by the treatment. More than half of this group were complicated by other diseases. The rheumatism was also of more than two weeks duration, and a few salicylic acid preparations had given no relief. Bendix says his experience with atophan in articular rheumatism leads him to the conclusion that its action is extraordinarily similar to that of the salicylic acid preparations, and only slightly inferior to them. The explanation of its action can be determined only by further experimentation. Atophan is free from untoward effects even when given in large doses over long periods of time. Three grams a day are sufficient given in divided doses, and it should be administered for at least six successive days in this way unless results are obtained within that time. In most cases which resist salicylates, atophan will give relief if not a complete cure. He recommends, therefore, the use of atophan especially for such cases.

Antityphoid Inoculation for Nurses.—Spooner (*Jour. Amer. Med. Assoc.*, 1912, lix, 1359) has instituted antityphoid inoculation in various training schools for nurses in Massachusetts during a period of three years, and in his article relates his observations on the subject. He says that frequent injections of small amounts of a low-virulence cause slight inconvenience. They seem to produce a protection among nurses, who are eight times more liable to the disease than the average individual. Their morbidity, under ordinary conditions, is 1.4 per cent., or 19 cases among 1361. Only 2 cases developed under these conditions. Case morbidity among the uninoculated in these hospitals is nearly nine times greater than among the inoculated, subjected to similar conditions. No permanent untoward effects have arisen from over 5000 injections. The blood picture indicates a certain protection lasting at least two and one-half years. The use of this means of protection has been shown to be safe in two epidemics, and very efficient in at least one of them.

Curative and Prophylactic Inoculation for Human Tuberculosis.—Friedmann (*Berlin. klin. Woch.*, 1912, xlix, 2214) writes concerning his method of treating tuberculosis. He does not give the details of the method of preparation of his material for inoculation, but indicates that it is prepared from a variety of the tubercle bacillus which was naturally free from nearly all toxic action, and which was only slightly virulent for man. Friedmann has applied his method of treatment to 1182 cases of tuberculosis of all kinds in various clinics and hospitals under the constant critical observation of many physicians. The remedy had no untoward results even when given in larger doses than necessary for therapeutic effects. He reports uniform improvement and cures in practically all the cases treated, although his statements as to the results are general, and no exact details are given. After the treatment was shown to be harmless, children constantly exposed to tuberculosis were given prophylactic injections of the remedy. A single intramuscular injection was thus given to 335 children aged from one hour to three years. All of these children have borne the inoculation, which was given over a year ago, without the least harm. These children were, at the time of this report, free from any indication of "scrofula" or tuberculosis. Guinea-pigs were injected with very large doses of the remedy without their showing any untoward effects from the inoculation. When killed years later they were found to be entirely healthy. The avirulent bacilli had been entirely absorbed, and Friedmann believes that a certain degree of immunity was produced by the injections. The animals thus immunized were able to resist severe artificial infection; the immunized animals survived on an average, 363 days, while 10 untreated controls lived only 110 days. However, all the injected animals died eventually of the tuberculosis produced by the artificial injection. Friedmann believes that the conditions of infection in man are never so menacing as in artificial laboratory infection, and he thinks his method of treat-